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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,774	12/08/2003	James M. Schreder	120 05866US	3420

128 7590 10/18/2006

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EXAMINER

NORTON, JENNIFER L

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/729,774	Applicant(s) SCHREDER ET AL.	
	Examiner Jennifer L. Norton	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a **Non-Final Office Action** in response to the Request for Continued Examination filed on 29 September 2006. Claim 4 has been amended. Claim 15 is newly added. Claims 2-15 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2-7 and 9-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,881,115 (hereinafter Lipner).

4. As per claim 2, Lipner discloses determining whether said current output is an information type (col. 4, lines 12-13); and marking said current output as complete, if said current output is said information type (col. 4, lines 15-19).

5. As per claim 3, Lipner discloses after the executing step, storing a value of said automatic expression to a destination reference (col. 3, lines 49-51).

6. As per claim 4, Lipner discloses a control system that uses, sequential control modules, said control system comprising:

a user interface component (col. 3, lines 47-49, Fig. 1, element 33 and 35) that provides at least a table view (Fig. 3), said table view comprising a plurality of outputs of a selected step of at least one of said sequential control modules, wherein said outputs comprise a combination of at least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63);

an operator station (Fig. 1, element 19) that executes said user interface component (col. 3, lines 44-47) and that responds to at least one input operator for said interactive instruction (col. 2, lines 27-35, col. 3, lines 58-64, and col. 4, lines 19-22); and

at least one controller (Fig. 1, element 15 and col. 3, lines 18-21) that is operated by executing said interactive instruction at least partly in response to said operator input and said automatic expression automatically (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63).

7. As per claim 5, Lipner discloses a journaling component (Fig. 1, element 37) capable of being executing on said operator station for recording information related to the execution of said sequential control module (col. 3, lines 49-51).

8. As per claim 6, Lipner discloses said table view comprises:

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module, wherein said selected step is selected from said list (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49);

a details area that provides a step name and a step description for said selected step (Fig. 3, element 65); and

a parameters area that provides a current value of at least one parameter associated with said selected step (col. 5, lines 63-65 and Fig. 3, element 67).

9. As per claim 7, Lipner discloses an additional details area (Fig. 3, element 61) for information associated with said selected step (col. 5, lines 53-57).

10. As per claim 9, Lipner discloses said details area includes a confirmation component to receive a confirmation from said operator (col. 6, lines 15-16 and Fig. 3, element 59).

11. As per claim 10, Lipner discloses said user interface component also provides a sequential function chart view (col. 4, lines 2-4 and Fig. 2, element 41).

12. As per claim 11, Lipner discloses a computer readable medium having executable instructions stored thereon to perform a method in a control system that uses sequential control modules, said method comprising:

providing a type indication on a display for an instruction in a sequential control module, said type being confirmable or informational (col.4, lines 12-13); and

receiving a confirmation from an operator before completing said instruction, if said type is confirmable (col. 6, lines 15-16)

at least one of said executable instructions causing an interactive display screen (col. 4, lines 35-39 and Fig. 3) to be presented to an operator that displays a plurality of outputs (col. 4, lines 55-63 and col. 5, lines 62-65) of a selected step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19), wherein said outputs comprise a combination of both automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22);

at least one of said executable instructions causing a determination of whether a current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

at least one of said executable instructions causing, if said current output is an interactive instruction, a determination of whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

a marking said current output complete (col. 4, lines 24-25); and

at least one of said executable instructions causing, if said current output is an automatic expression, at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression 9col. 3, liens 13-17 and col. 4, lines 19-20).

13. As per claim 12, Lipner discloses the computer readable medium further comprising: at least one of said executable instructions causing at least one value of a parameter to be associated with at least one of said outputs on said display screen (col. 5, lines 63-65 and Fig. 3, element 67).

14. As per claim 13, Lipner discloses the computer readable medium further comprising: at least one of said executable instructions causing additional information about said current output to be displayed on said display screen (col. 5, lines 53-57 and Fig 3, element 61).

15. As per claim 14, Lipner discloses a method of providing interactive control in a control system that uses sequential control modules, said method comprising:

presenting an interactive display screen (col. 4, lines 35-39 and Fig. 3) to an operator that displays a plurality of outputs (col. 4, lines 55-63 and col. 5, lines 62-65) of a selected step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19), wherein said outputs comprise a combination of at

least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22);

determining whether a current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

if said current output is an interactive instruction, determining whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

if said interactive instruction has been confirmed by said operator, marking said current output complete (col. 4, lines 24-25); and

if said current output is an automatic expression, using at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression (col. 3, lines 13-17 and col. 4, lines 19-20).

16. As per claim 15, Lipner discloses a control system that uses sequential control modules, said control system comprising:

an operator station (Fig. 1, element 19) that comprises a user interface component (col. 3, lines 44-47) that provides a display to an operator (Fig. 3) and a program that runs on said operator station an interactive procedure to present on said display a table view (Fig. 3) comprising a plurality of outputs of an operator selected step of at least one of said sequential control modules, wherein said outputs comprise a

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combination of at least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63); and

a controller (col. 3, lines 18-21 and Fig. 1, element 15) that executes said automatic expression automatically and said interactive instruction at least partly in response to one or more inputs of said operator to said operator station (col. 2, lines 27-35, col. 3, lines 58-64 and col. 4, lines 19-22).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipner in view of U.S. Patent No: 6,775,576 (hereinafter Spriggs).

19. As per claim 8, Lipner does not expressly teach a trend area that provides a graph of said at least one parameter associated with said selected step.

Spriggs teaches to a trend area that provides a graph of said at least one parameter associated with said selected step (col. 19, lines 27-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a trend area to reduce capital cost and the traditional requirement for both expertise and human resources necessary to integrate and maintain prior systems is reduced (col. 2, lines 7-9).

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. Claims 2-7 and 9-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,803,039 (hereinafter Impink).

22. As per claim 2, Impink discloses determining whether said current output is an information type (col. 9, lines 41-44); and

marking said current output as complete, if said current output is said information type (col. 9, lines 44-51).

23. As per claim 3, Impink discloses after the executing step, storing a value of said automatic expression to a destination reference (col. 8, lines 25-29, col. 14, lines 19-22, col. 14, Table II and Fig. 1, element 53).

24. As per claim 4, Impink discloses a control system that uses sequential control modules, said control system comprising:

a user interface component (Fig. 2 and 3, element 27) that provides at least a table view (col. 8, lines 30-32, col. 9, lines 32-40 and Fig. 2, element 71, 73 and 75), said table view comprising a plurality of outputs of a selected step of at least one of said sequential control modules (col. 11, lines 7-14 and Fig. 3), wherein said outputs comprise a combination of at least one automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) at least one interactive instruction (col. 14, lines 47-50 and 56-59)

an operator station (Fig. 1, element 23) that executes said user interface component (col. 6, lines 52-54) and that responds to at least one input of an operator for said interactive instruction (col. 8, lines 3-7); and

at least one controller (Fig. 1, element 13) that is operated by executing said interactive instruction at least partly in response to said operator input and said automatic expression automatically (col. 5, lines 40-44).

25. As per claim 5, Impink discloses a journaling component (col. 14, Table II and Fig. 1, element 53) capable of being executing on said operator station for recording information related to the execution of said sequential control module (col. 8, lines 25-29 and col. 14, lines 19-22).

26. As per claim 6, Impink discloses a summary area (Fig. 2, element 69) that provides a name of said sequential control module and a list of steps (Fig. 2, element 71, 73 and 75) in said sequential control module, wherein said selected step selected from said list (col. 9, lines 32-40 and Fig. 2);

a details area (Fig. 2, element 71) that provides a step name and a step description for said selected step (col. 8, lines 66-68); and

a parameters area that provides a current value of at least one parameter associated with said selected step (col. 11, lines 46-49).

27. As per claim 7, Impink discloses an additional details area (Fig. 2, element 71) for information associated with said selected step (col. 8, lines 66-68 and col. 9, lines 1-10).

28. As per claim 9, Impink discloses said details area includes a confirmation component (Fig. 2, element 77) to receive a confirmation from said operator (col. 9, lines 41-46).

29. As per claim 10, Impink discloses said user interface component also provides a sequential function chart view (col. 9, lines 32-40 and Fig. 2, element 71, 73 and 75).

30. As per claim 11, Impink discloses a computer readable medium having executable instructions stored thereon to perform a method in a control system that uses sequential control modules, said method comprising:

providing a type indication on a display for an instruction in a sequential control module (col. 9, lines 32-40 and Fig. 2, element 71, 73 and 75), said type being confirmable (col. 14, lines 47-50 and 56-59) or informational (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65); and

receiving a confirmation (Fig. 2, element 77) from an operator before completing said instruction, if said type is confirmable (col. 9, lines 41-46)

at least one of said executable instructions causing an interactive display screen to be presented to an operator (Fig. 2 and 3, element 27) that displays a plurality of outputs of a selected step of at least one of said sequential control modules (col. 11, lines 7-14 and Fig. 3), wherein said outputs comprise a combination of both automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59);

at least one of said executable instructions causing a determination of

whether a current one of said outputs is an interactive instruction (col. 9, lines 41-44) or an automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65);

at least one of said executable instructions causing, if said current output is an interactive instruction, a determination of whether said interactive instruction has been confirmed by said operator (col. 9, lines 41-44);

at least one of said executable instructions causing, if said interactive instruction has been confirmed by said operator, a marking said current output complete (col. 9, lines 44-51); and

at least one of said executable instructions causing, if said current output is an automatic expression, at least one controller (Fig. 1, element 13) in said control system to execute said automatic expression (col. 5, lines 40-44).

31. As per claim 12, Impink discloses at least one of said executable instructions causing at least one value of a parameter to be associated with at least one of said outputs on said display screen (col. 11, lines 7-14 and Fig. 3).

32. As per claim 13, Impink discloses at least one of said executable instructions causing additional information (Fig. 2, element 71) about said current output to be displayed on said display screen (col. 8, lines 66-68 and col. 9, lines 1-10).

33. As per claim 14, Impink discloses a method of providing interactive control in a

control system that uses sequential control modules, said method comprising:

presenting an interactive display screen (Fig. 2 and 3, element 27) to an operator that displays a plurality of outputs of a selected step of at least one of said sequential control modules (col. 11, lines 7-14 and Fig 3), wherein said outputs comprise a combination of at least one automatic expression (col. 13; lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59);

determining whether a current one of said outputs is an interactive instruction (col. 9, lines 41-44) or an automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65);

if said current output is an interactive instruction, determining whether said interactive instruction has been confirmed by said operator (col. 9, lines 41-44);

if said interactive instruction has been confirmed by said operator, marking said current output complete (col. 9, lines 44-51); and

if said current output is an automatic expression, using at least one controller (Fig. 1, element 13) in said control system to execute said automatic expression (col. 5, lines 40-44).

34. As per claim 15, Impink discloses a control system that uses sequential control modules, said control system comprising:

an operator station (Fig. 1, element 23) that comprises a user interface component (Fig. 2 and 3, element 27) that provides a display to an operator (col. 8, lines 30-32) and a program (col. 6, lines 52-59) that runs on said operator station an interactive procedure to present on said display a table view (col. 9, lines 32-40 and Fig. 2, element 71, 73 and 75) comprising a plurality of outputs of an operator selected step of at least one of said sequential control modules (col. 11, lines 7-14 and Fig. 3), wherein said outputs comprise a combination of at least one automatic expression (col. 13, lines 59-62 and col. 14, lines 51-56 and 59-65) and at least one interactive instruction (col. 14, lines 47-50 and 56-59); and

a controller (Fig. 1, element 13) that executes said automatic expression automatically and said interactive instruction at least partly in response to one or more inputs of said operator to said operator station (col. 5, lines 40-44).

Claim Rejections - 35 USC § 103

35. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

36. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Impink in view of U.S. Patent No: 6,775,576 (hereinafter Spriggs).

37. As per claim 8, Impink does not expressly teach a trend area that provides a graph of said at least one parameter associated with said selected step.

Spriggs teaches to a trend area that provides a graph of said at least one parameter associated with said selected step (col. 19, lines 27-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Impink to include a trend area to reduce capital cost and the traditional requirement for both expertise and human resources necessary to integrate and maintain prior systems is reduced (col. 2, lines 7-9).

Response to Declaration 37 CFR 1.132

38. The Declaration under 37 CFR 1.132 filed 29 September 2006 is insufficient to overcome the rejection of claims 2-7 and 9-11 based upon 35 U.S.C 102(b) and claim 8 based upon 35 U.S.C. 103(a) as set forth in the last Office action because:

- a. It refer(s) only to the system described in the above referenced Lipner prior art and not to the individual claims of the instant application. Thus, there is

no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

b. The nature of the Declaration appears to be a supplemental statement of the attorney's Remarks filed on 29 September 2006. The Office does participate in parallel communication between the attorney of record and inventor.

Appropriate consideration will be given to arguments of Declaration 1.132 at the time they are disclosed in Remarks of an Amendment.

Response to Arguments

39. Applicant's arguments, see Remarks pgs. 7-13, filed 29 September 2006 with respect to claims 2-7 and 9-11 under 35 U.S.C 102(b) have been considered but are moot in view of the new ground(s) of rejection.

40. Applicant's arguments, see Remarks pg. 13, filed 29 September 2006 with respect to claim 8 under 35 U.S.C 103(a) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to a control interface system.

U.S. Patent Publication No. 2006/0153613 discloses a method for error handling in a printer or copier.

U.S. Patent No. 5,553,304 discloses a method for monitoring the operation of a nuclear power facility.

U.S. Patent No. 6,243,682 discloses a system that enables handicapped and disabled individuals to control and use office photocopiers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Art Unit 2121